

In the Claims

1. (Currently Amended) A dry etching method comprising the step of:

dry-etching a formed film of tungsten ~~in-through~~ its entirety thickness as originally formed using only a single mixed gas including a fluorine-containing gas that includes a compound having fluorine and carbon in a molecule, chlorine or hydrogen bromide, oxygen, and nitrogen,

wherein said fluorine-containing gas has a structure that a ratio of fluorine atoms with respect to elements of the gas molecule except for fluorine is four or less when the composition of the fluorine molecule is M_xF_y , $Y/X \leq 4$ where M is an element except for fluorine atom and F is fluorine, and the total number of fluorine atoms in elements constituting said gas molecule is four or less.

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) A method of manufacturing a semiconductor apparatus comprising the steps of:

laminating upwards a polycrystal silicon film or an amorphous silicon film, a tungsten nitride film or a titanium nitride film, and a tungsten film on a silicon substrate; and

performing a dry-etching of said tungsten nitride film ~~in-through~~ its entirety thickness as originally formed, or said titanium nitride film and said tungsten film ~~in-through~~ its entirety thickness as originally formed, with only a single mixed gas containing fluorine-containing gas that includes a compound having fluorine and carbon in a molecule, chlorine or hydrogen bromide, oxygen and nitrogen so that a gate electrode is formed,

wherein said fluorine-containing gas has a structure that a ratio of fluorine atoms with respect to elements of the gas molecule except for fluorine is four or less when the composition of the fluorine molecule is M_xF_y , $Y/X \leq 4$ where M is an element except for fluorine atom and F is fluorine, and the total number of fluorine atoms in elements constituting said gas molecule is four or less.

5. (Original) A method of manufacturing a semiconductor apparatus according to claim 4, wherein said gate electrode is formed by dry-etching said polycrystal silicon film or said amorphous silicon film with gas which does not contain fluorine.

6. (Previously Amended) A method of manufacturing a semiconductor apparatus according to claim 4, wherein a mask is formed by silicon oxide or silicon nitride, and said gate electrode is formed by dry etching using said mask.

7. (Cancelled)

8. (Cancelled)

